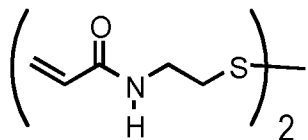


## LISTING OF THE CLAIMS

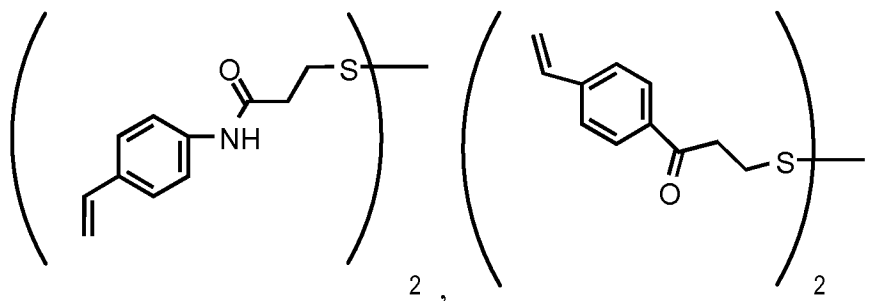
1. **(Previously Presented)**. An antimicrobial lens comprising silver and a polymer comprising a monomer of Formula

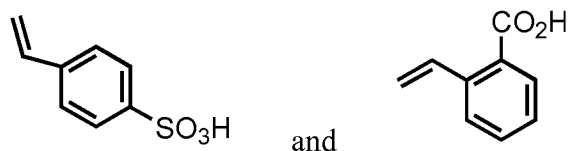


2. **(Canceled)**
3. **(Canceled)**
4. **(Previously Presented)** The antimicrobial lens of claim 1 wherein the lens is a soft contact lens.
5. **(Previously Presented)** The antimicrobial lens of claim 1 wherein the monomer of Formula I is present at about 0.01 to about 1.5 weight percent.
6. **(Previously Presented)** The antimicrobial lens of claim 1 wherein the monomer of Formula I is present at about 0.01 to about 0.8 weight percent.
7. **(Previously Presented)** The antimicrobial lens of claim 1 wherein the monomer of Formula I is present at about 0.01 to about 0.3 weight percent.
8. **(Previously Presented)** The antimicrobial lens of claim 1 wherein the monomer of Formula I is present at about 0.01 to about 0.2 weight percent.

9.     **(Previously Presented)** The antimicrobial lens of claim 1 wherein the monomer of Formula I is present at about 0.01 to about 0.09 weight percent.
10.    **(Previously Presented)** The antimicrobial lens of claim 1 wherein the lens is a silicone hydrogel.
11.    **(Previously Presented)** The antimicrobial lens of claim 1 wherein, the lens is etafilcon A, balafilcon, A, aquafilcon A, lenafilcon A, or lotrafilcon A.
12.    **(Canceled)**
13.    **(Canceled)**
14.    **(Previously Presented)** The antimicrobial lens of claim 1 wherein silver is present at about 20 ppm to about 1,200 ppm.
15.    **(Previously Presented)** The antimicrobial lens of claim 1 wherein silver is present at about 20 ppm to about 600 ppm.
16.    **(Previously Presented)** The antimicrobial lens of claim 1 wherein silver is present at about 20 ppm to about 150 ppm.
17.    **(Previously Presented)** The antimicrobial lens of claim 1 wherein silver is present at about 20 ppm to about 75 ppm.
18.    **(Canceled)**
19.    **(Previously Presented)** The antimicrobial lens of claim 1 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula I is present at about 0.01 to about 1.5 weight percent.
20.    **(Canceled)**

21. **(Previously Presented)** The antimicrobial lens of claim 11 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula I is present at about 0.01 to about 1.5 weight percent.
22. **(Original)** The antimicrobial lens of claim 21 wherein the lens is etafilcon A.
23. **(Original)** The antimicrobial lens of claim 21 wherein the lens is aquafilcon A.
24. **(Original)** The lens of claim 23 wherein silver is present at about 20 ppm to about 75 ppm.
25. **(Withdrawn)** The antimicrobial lens of claim 1 comprising a polymer comprising a monomer of Formula II.
26. **(Withdrawn)** The antimicrobial lens of claim 25 wherein,  
a is 1-2,  
 $R^{11}$  is hydrogen or  $C_{1-3}$ alkyl,  
 $R^{12}$  is sulfonic acid, carboxylic acid, phosphonic acid,  $C_{1-6}$ alkyldisulfide,  $C_{1-6}$ alkylsulfide, phenyldisulfide, substituted phenyldisulfide or  $NH-R^{13}$ ,  
 $R^{13}$  is thio $C_{1-6}$ alkylcarbonyl.
27. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the monomer of Formula II is selected from the group consisting of





28. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the lens is a soft contact lens.
29. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the monomer of Formula II is present at about 0.01 to about 1.5 weight percent.
30. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the monomer of Formula II is present at about 0.01 to about 0.8 weight percent.
31. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the monomer of Formula II is present at about 0.01 to about 0.3 weight percent.
32. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the lens is etafilcon A, balafilcon A, aquafilcon A, lenefilcon A, or lotrafilcon A.
33. **(Withdrawn)** The antimicrobial lens of claim 25 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula II is present at about 0.01 to about 1.5 weight percent.
34. **(Withdrawn)** The antimicrobial lens of claim 33 wherein the lens is etafilcon A or aquafilcon A.
35. **(Withdrawn)** The antimicrobial lens of claim 1 comprising a polymer comprising a monomer of Formula III.
36. **(Withdrawn)** The antimicrobial lens of claim 35 wherein,

p is 1-3;

b is 1-2;

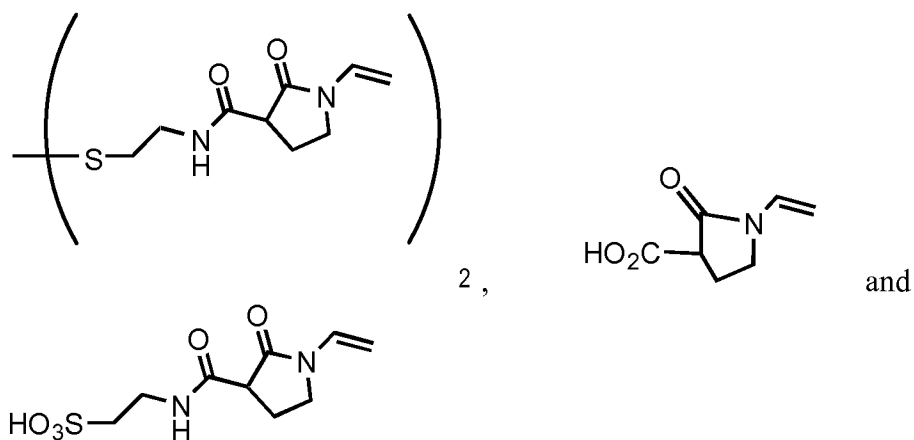
R<sup>21</sup> is hydrogen;

R<sup>22</sup> is sulfonic acid, phosphonic acid, carboxylic acid, thioC<sub>1-6</sub>alkylcarbonyl, thioC<sub>1-6</sub>alkylaminocarbonyl, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, substituted phenyldisulfide,

H<sub>3</sub>OS-(CH<sub>2</sub>)<sub>1-6</sub>NHC(O) or

(HO)<sub>2</sub>(O)P-(CH<sub>2</sub>)<sub>1-6</sub>NHC(O)-.

37. **(Withdrawn)** The antimicrobial lens of claim 35 wherein the monomer of Formula III is selected from the group consisting of

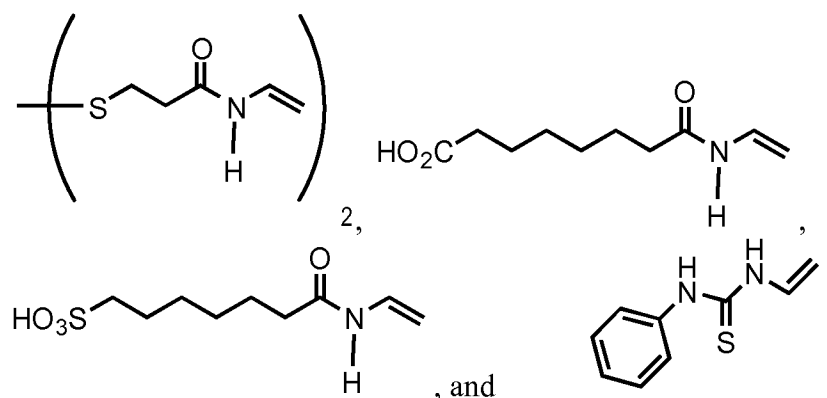


38. **(Withdrawn)** The antimicrobial lens of claim 35 wherein the lens is a soft contact lens.

39. **(Withdrawn)** The antimicrobial lens of claim 35 wherein the monomer of Formula III is present at about 0.01 to about 1.5 weight percent.

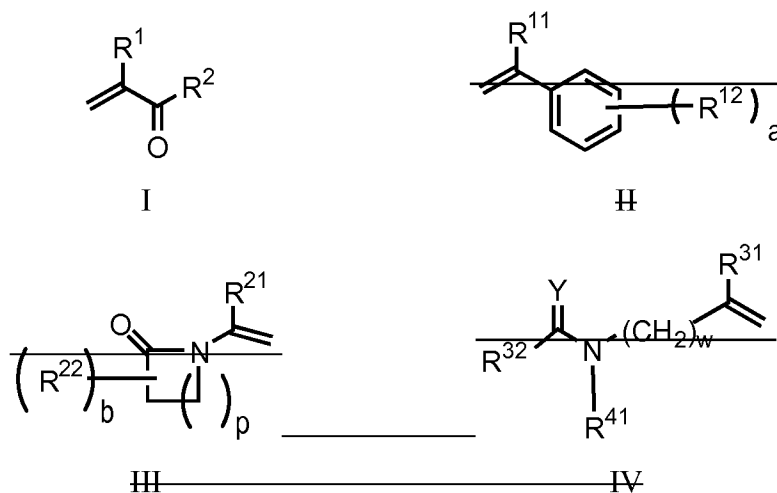
40. **(Withdrawn)** The antimicrobial lens of claim 35 wherein the monomer of Formula III is present at about 0.01 to about 0.8 weight percent.

41. **(Withdrawn)** The antimicrobial lens of claim 35 wherein the monomer of Formula III is present at about 0.01 to about 0.3 weight percent.
42. **(Withdrawn)** The antimicrobial lens of claim 35 wherein, the lens is etafilcon A, balafilcon, A, aquafilcon A, lenefilcon A, or lotrafilcon A.
43. **(Withdrawn)** The antimicrobial lens of claim 35 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula III is present at about 0.01 to about 1.5 weight percent.
44. **(Withdrawn)** The antimicrobial lens of claim 43 wherein the lens is etafilcon A or aquafilcon A.
45. **(Withdrawn)** The antimicrobial lens of claim 1 comprising a polymer comprising a monomer of Formula IV.
46. **(Withdrawn)** The antimicrobial lens of claim 45 wherein,  
w is 0-1;  
 $R^{31}$  is hydrogen;  
 $R^{32}$  is amine,  $C_{1-3}$ alkylamine, phenylamine, substituted phenylamine;  
thio $C_{1-3}$ alkylcarbonyl;  
 $R^{41}$  is hydrogen.
47. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the monomer of Formula IV is selected from the group consisting of



48. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the lens is a soft contact lens.
49. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the monomer of Formula IV is present at about 0.01 to about 1.5 weight percent.
50. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the monomer of Formula IV is present at about 0.01 to about 0.8 weight percent.
51. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the monomer of Formula IV is present at about 0.01 to about 0.3 weight percent.
52. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the lens is etafilcon A, balafilcon, A, aquafilcon A, lenefilcon A, or lotrafilcon A.
53. **(Withdrawn)** The antimicrobial lens of claim 45 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula IV is present at about 0.01 to about 1.5 weight percent.
54. **(Withdrawn)** The antimicrobial lens of claim 53 wherein the lens is etafilcon A or aquafilcon A.

55. **(Currently Amended)** A method of producing an antimicrobial lens comprising, up to about 200 ppm silver and a polymer comprising a monomer of Formula I, H, ~~III or IV~~



wherein

R<sup>1</sup> is hydrogen or C<sub>1-6</sub>alkyl;

$R^2$  is  $-OR^3$ ,  $-NH-R^3$ ,  $-S-(CH_2)_d-R^3$ , or  $-(CH_2)_d-R^3$ , wherein

d is 0-8;

R<sup>3</sup> is substituted C<sub>1-6</sub>alkyl

where the alkyl substituents are selected from one or more members of the group consisting of carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted C<sub>1-6</sub>alkylthiourea, and substituted phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl,



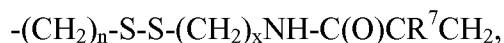
carboxylic acid, sulfonic acid, phosphonic acid, amine,  
amidine, acetamide, and nitrile;



wherein  $\text{R}^4$ ,  $\text{R}^5$ , and  $\text{R}^6$  are independently selected from the  
group consisting of hydrogen, halogen, hydroxyl, and  
 $\text{C}_{1-6}$ alkyl,

$q$  is 1-6, and

$m$  is 0-6;



wherein  $\text{R}^7$  is hydrogen or  $\text{C}_{1-6}$ alkyl,

$n$  is 1-6, and

$x$  is 1-6;



wherein  $\text{R}^8$ ,  $\text{R}^9$ , and  $\text{R}^{10}$  are independently selected from the  
group consisting of hydrogen, halogen, hydroxyl, and  
 $\text{C}_{1-6}$ alkyl,

$t$  is 1-6, and

$u$  is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;  
4-methylpiperazin-1-yl;  
substituted phenyl;  
substituted benzyl;  
substituted pyridinyl;  
substituted pyrimidinyl;  
substituted pyrazinyl;  
substituted benzimidazolyl;  
substituted benzothiazolyl;  
substituted benzotriazolyl;  
substituted naphthaloyl;  
substituted quinolinyl;  
substituted indolyl;  
substituted thiadiazolyl;  
substituted triazolyl;  
substituted 4-methylpiperidin-1-yl; or  
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl,

N-(aminotriazolyl)sulfonyl,  
 N-(amino-4-methylpiperidinyl)sulfonyl,  
 N-(amino-4-methylpiperazinyl)sulfonyl,  
 N-(aminobenzimidazolyl)carbonyl,  
 N-(aminobenzothiazolyl)carbonyl,  
 N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,  
 N-(aminothiazolyl)carbonyl,  
 N-(aminotriazolyl)carbonyl,  
 N-(amino-4-methylpiperidinyl)carbonyl,  
 N-(amino-4-methylpiperazinyl)carbonyl,  
 N-(2-aminobenzimidazolyl)phosphonyl,  
 N-(2-aminobenzothiazolyl)phosphonyl,  
 N-(2-aminobenzotriazolyl)phosphonyl,  
 N-(2-aminoindolyl)phosphonyl,  
 N-(2-aminothiazolyl)phosphonyl,  
 N-(2-aminotriazolyl)phosphonyl,  
 N-(amino-4-methylpiperidinyl) phosphonyl,  
 N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,  
 thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide,  
 urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,  
 phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted  
 phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted  
 C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted  
 phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,  
 C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and  
 phenylthiourea substituents are selected from the group  
 consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl,  
 carboxylic acid, sulfonic acid, phosphonic acid, amine,  
 amidine, acetamide, and nitrile;

a is 1-5;

$R^{11}$  is hydrogen or  $C_{1-6}$ alkyl;

$R^{12}$  is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, acetamide, thio $C_{1-6}$ alkylcarbonyl,  $C_{1-6}$ alkyldisulfide,  $C_{1-6}$ alkylsulfide, phenyl disulfide, urea,  $C_{1-6}$ alkylurea, phenylurea, thiourea,  $C_{1-6}$ alkylthiourea, phenylthiourea,  $-OR^{13}$ ,  $-NH-R^{13}$ ,  $-S-(CH_2)_d-R^{13}$ ,  $-(CH_2)_d-R^{13}$ ,  $-C(O)NH-(CH_2)_d-R^{13}$ ,  $-C(O)-(CH_2)_d-R^{13}$ ; substituted  $C_{1-6}$ alkyldisulfide, substituted phenyldisulfide, substituted  $C_{1-6}$ alkylurea, substituted phenylurea, substituted phenylthiourea or substituted  $C_{1-6}$ alkylthiourea wherein the substituents are selected from the group consisting of  $C_{1-6}$ alkyl, halo $C_{1-6}$ alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

where

$d$  is 0-8;

$R^{13}$  is ~~thio $C_{1-6}$ alkylcarbonyl;~~

~~—— substituted  $C_{1-6}$ alkyl~~

~~where the alkyl substituents are selected from one or more members of the group consisting of hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol,  $C_{1-6}$ alkyldisulfide,  $C_{1-6}$ alkylsulfide, phenyldisulfide, urea,  $C_{1-6}$ alkylurea, phenylurea, thiourea,  $C_{1-6}$ alkylthiourea, phenylthiourea, substituted  $C_{1-6}$ alkyldisulfide, substituted phenyldisulfide, substituted  $C_{1-6}$ alkylurea, substituted phenylurea, substituted  $C_{1-6}$ alkylthiourea and substituted phenylthiourea~~

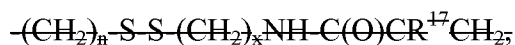
~~wherein the  $C_{1-6}$ alkyldisulfide, phenyldisulfide,  $C_{1-6}$ alkylurea,  $C_{1-6}$ alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of  $C_{1-6}$ alkyl, halo $C_{1-6}$ alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;~~



where  $R^{14}$ ,  $R^{15}$ , and  $R^{16}$  are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and  $C_{1-6}$ alkyl,

q is 1-6, and

m is 0-6;



where  $R^{17}$  is hydrogen or  $C_{1-6}$ alkyl,

n is 1-6, and

x is 1-6;



where  $R^{18}$ ,  $R^{19}$ , and  $R^{20}$  are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and  $C_{1-6}$ alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;

4-methylpiperazin-1-yl;

substituted phenyl;

substituted benzyl;  
substituted pyridinyl;  
substituted pyrimidinyl;  
substituted pyrazinyl;  
substituted benzimidazolyl;  
substituted benzothiazolyl;  
substituted benzotriazolyl;  
substituted naphthaloyl;  
substituted quinolinyl;  
substituted indolyl;  
substituted thiadiazolyl;  
substituted triazolyl;  
substituted 4-methylpiperidin-1-yl; or  
substituted 4-methylpiperazin-1-yl

wherein the substituents are selected from one or more members of the group consisting of  $C_{1-6}$ alkyl, halo $C_{1-6}$ alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl, N-(aminotriazolyl)sulfonyl, N-(amino-4-methylpiperidinyl)sulfonyl, N-(amino-4-methylpiperazinyl)sulfonyl,

~~N-(aminobenzimidazolyl)carbonyl,~~  
~~N-(aminobenzothiazolyl)carbonyl,~~  
~~N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,~~  
~~N-(aminothiazolyl)carbonyl,~~  
~~N-(aminotriazolyl)carbonyl,~~  
~~N-(amino-4-methylpiperidiny)carbonyl,~~  
~~N-(amino-4-methylpiperazinyl)carbonyl,~~  
~~N-(2-aminobenzimidazolyl)phosphonyl,~~  
~~N-(2-aminobenzothiazolyl)phosphonyl,~~  
~~N-(2-aminobenzotriazolyl)phosphonyl,~~  
~~N-(2-aminoindolyl)phosphonyl,~~  
~~N-(2-aminothiazolyl)phosphonyl,~~  
~~N-(2-aminotriazolyl)phosphonyl,~~  
~~N-(amino-4-methylpiperidiny)phosphonyl,~~  
~~N-(amino-4-methylpiperazinyl)phosphonyl, acetamide, nitrile,~~  
~~thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide,~~  
~~urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,~~  
~~phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted~~  
~~phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted~~  
~~C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted~~  
~~phenylthiourea~~

wherein the ~~C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,~~  
~~C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and~~  
~~phenylthiourea~~ substituents are selected from the group  
 consisting of ~~C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl,~~  
~~carboxylic acid, sulfonic acid, phosphonic acid, amine,~~  
~~amidine, acetamide, and nitrile;~~

~~b is 1-5;~~

~~p is 1-5;~~

~~R<sup>21</sup> is hydrogen;~~

$R^{22}$  is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, thio $C_{1-6}$ alkylcarbonyl, thio $C_{1-6}$ alkylaminocarbonyl,  $C_{1-6}$ alkyldisulfide, phenyldisulfide,  $-C(O)NH(CH_2)_{1-6}-SO_3H$ ,  $-C(O)NH(CH_2)_{1-6}-P(O)(OH)_2$ ,  $-OR^{23}$ ,  $-NH-R^{23}$ ,  $-C(O)NH-(CH_2)_d-R^{23}$ ,  $-S-(CH_2)_d-R^{23}$ ,  $-(CH_2)_d-R^{23}$ , urea,  $C_{1-6}$ alkylurea, phenylurea, thiourea,  $C_{1-6}$ alkylthiourea, phenylthiourea, substituted  $C_{1-6}$ alkyldisulfide, substituted phenyldisulfide, substituted  $C_{1-6}$ alkylurea, substituted,  $C_{1-6}$ alkylthiourea substituted phenylurea or substituted phenylthiourea wherein the substituents are selected from the group consisting of  $C_{1-6}$ alkyl, halo $C_{1-6}$ alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile,

where

$d$  is 0-8;

$R^{23}$  is thio $C_{1-6}$ alkylcarbonyl,

$C_{1-6}$ alkyl,

substituted  $C_{1-6}$ alkyl

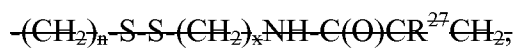
where the alkyl substituents are selected from one or more members of the group consisting of  $C_{1-6}$ alkyl, halo  $C_{1-6}$ alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol,  $C_{1-6}$ alkyldisulfide,  $C_{1-6}$ alkylsulfide, phenyldisulfide, urea,  $C_{1-6}$ alkylurea, phenylurea, thiourea,  $C_{1-6}$ alkylthiourea, phenylthiourea, substituted  $C_{1-6}$ alkyldisulfide, substituted phenyldisulfide, substituted  $C_{1-6}$ alkylurea, substituted phenylurea, substituted  $C_{1-6}$ alkylthiourea, and substituted phenylthiourea

wherein the  $C_{1-6}$ alkyldisulfide, phenyldisulfide,  $C_{1-6}$ alkylurea,  $C_{1-6}$ alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of  $C_{1-6}$ alkyl, halo $C_{1-6}$ alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;





where  $R^{24}$ ,  $R^{25}$ , and  $R^{26}$  are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and  $C_{1-6}$ alkyl;  
 $q$  is 1-6, and  
 $m$  is 0-6



where  $R^{27}$  is hydrogen or  $C_{1-6}$ alkyl;  
 $n$  is 1-6, and  
 $x$  is 1-6;



where  $R^{28}$ ,  $R^{29}$ , and  $R^{30}$  are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and  $C_{1-6}$ alkyl;  
 $t$  is 1-6, and  
 $u$  is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;

4-methylpiperazin-1-yl;

substituted phenyl;  
substituted benzyl;  
substituted pyridinyl;  
substituted pyrimidinyl;  
substituted pyrazinyl;  
substituted benzimidazolyl;  
substituted benzothiazolyl;  
substituted benzotriazolyl;  
substituted naphthaloyl;  
substituted quinolinyl;  
substituted indolyl;  
substituted thiadiazolyl;  
substituted triazolyl;  
substituted 4-methylpiperidin-1-yl; or  
substituted 4-methylpiperazin-1-yl;

~~wherein the substituents are selected from one or more  
members of the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl,  
halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic  
acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,  
N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,  
N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,  
N-(aminopyrazine)carbonyl,  
N-(2-aminopyrimidine)phosphonyl,  
N-(2-aminopyridine)phosphonyl,  
N-(aminopyrazine)phosphonyl,  
N-(aminobenzimidazolyl)sulfonyl,  
N-(aminobenzothiazolyl)sulfonyl,  
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,  
N-(aminothiazolyl)sulfonyl,  
N-(aminotriazolyl)sulfonyl,  
N-(amino-4-methylpiperidinyl)sulfonyl,~~

~~N-(amino-4-methylpiperazinyl)sulfonyl,~~  
~~N-(aminobenzimidazolyl)carbonyl,~~  
~~N-(aminobenzothiazolyl)carbonyl,~~  
~~N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,~~  
~~N-(aminothiazolyl)carbonyl,~~  
~~N-(aminotriazolyl)carbonyl,~~  
~~N-(amino-4-methylpiperidinyl)carbonyl,~~  
~~N-(amino-4-methylpiperazinyl)carbonyl,~~  
~~N-(2-aminobenzimidazolyl)phosphonyl,~~  
~~N-(2-aminobenzothiazolyl)phosphonyl,~~  
~~N-(2-aminobenzotriazolyl)phosphonyl,~~  
~~N-(2-aminoindolyl)phosphonyl,~~  
~~N-(2-aminothiazolyl)phosphonyl,~~  
~~N-(2-aminotriazolyl)phosphonyl,~~  
~~N-(amino-4-methylpiperidinyl)phosphonyl,~~  
~~N-(amino-4-methylpiperazinyl)phosphonyl, acetamide, nitrile,~~  
~~thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide,~~  
~~urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,~~  
~~phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted~~  
~~phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted~~  
~~C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted~~  
~~phenylthiourea~~

~~wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,~~  
~~C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and~~  
~~phenylthiourea substituents are selected from the group~~  
~~consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl,~~  
~~carboxylic acid, sulfonic acid, phosphonic acid, amine,~~  
~~amidine, acetamide, and nitrile;~~

~~w is 0-1;~~

~~Y is oxygen or sulfur;~~

~~R<sup>3+</sup> is hydrogen or C<sub>1-6</sub>alkyl;~~

$R^{32}$  is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, thio $C_{1-6}$ alkylcarbonyl, thio $C_{1-6}$ alkylaminocarbonyl,  $C(O)NH(CH_2)_d-R^{33}$ ,  $-O-R^{33}$ ,  $-NH-R^{33}$ ,  $-S-(CH_2)_d-R^{33}$ ,  $-(CH_2)_d-R^{33}$ ,  $C_{1-6}$ alkyldisulfide, phenyldisulfide, urea,  $C_{1-6}$ alkylurea, phenylurea, thiourea,  $C_{1-6}$ alkylthiourea, phenylthiourea,  $C_{1-6}$ alkylamine, phenylamine, substituted  $C_{1-6}$ alkyldisulfide, substituted phenyldisulfide, substituted phenylurea, substituted  $C_{1-6}$ alkylamine, substituted phenylamine, substituted phenylthiourea, substituted  $C_{1-6}$ alkylurea or substituted  $C_{1-6}$ alkylthiourea wherein the substituents are selected from the group consisting of  $C_{1-6}$ alkyl, halo $C_{1-6}$ alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile

where

$d$  is 0-8;

$R^{33}$  is thio $C_{1-6}$ alkylcarbonyl,

$C_{1-6}$ alkyl,

substituted  $C_{1-6}$ alkyl

where the alkyl substituents are selected from one or more members of the group consisting of  $C_{1-6}$ alkyl, halo  $C_{1-6}$ alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol,  $C_{1-6}$ alkyldisulfide,  $C_{1-6}$ alkylsulfide, phenyldisulfide, urea,  $C_{1-6}$ alkylurea, phenylurea, thiourea,  $C_{1-6}$ alkylthiourea, phenylthiourea, substituted  $C_{1-6}$ alkyldisulfide, substituted phenyldisulfide, substituted  $C_{1-6}$ alkylurea, substituted phenylurea, substituted  $C_{1-6}$ alkylthiourea or substituted phenylthiourea

wherein the  $C_{1-6}$ alkyldisulfide, phenyldisulfide,  $C_{1-6}$ alkylurea,  $C_{1-6}$ alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of  $C_{1-6}$ alkyl, halo $C_{1-6}$ alkyl, halogen, hydroxyl,

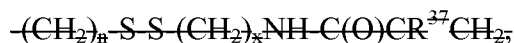
carboxylic acid, sulfonic acid, phosphonic acid, amine,  
amidine, acetamide, and nitrile;



where  $R^{34}$ ,  $R^{35}$ , and  $R^{36}$  are independently selected from the  
group consisting of hydrogen, halogen, hydroxyl, and  
 $C_{1-6}$ alkyl;

q is 1-6, and

m is 0-6;



where  $R^{37}$  is hydrogen or  $C_{1-6}$ alkyl;

n is 1-6, and

x is 1-6;



where  $R^{38}$ ,  $R^{39}$ , and  $R^{40}$  are independently selected from the  
group consisting of hydrogen, halogen, hydroxyl, and  
 $C_{1-6}$ alkyl;

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

~~4-methylpiperidin-1-yl;~~  
~~4-methylpiperazin-1-yl;~~  
~~substituted phenyl;~~  
~~substituted benzyl;~~  
~~substituted pyridinyl;~~  
~~substituted pyrimidinyl;~~  
~~substituted pyrazinyl;~~  
~~substituted benzimidazolyl;~~  
~~substituted benzothiazolyl;~~  
~~substituted benzotriazolyl;~~  
~~substituted naphthaloyl;~~  
~~substituted quinolinyl;~~  
~~substituted indolyl;~~  
~~substituted thiadiazolyl;~~  
~~substituted triazolyl;~~  
~~substituted 4-methylpiperidin-1-yl; or~~  
~~substituted 4-methylpiperazin-1-yl,~~

wherein the substituents are selected from one or more members of the group consisting of  $C_{1-6}$ alkyl, halo $C_{1-6}$ alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl,

~~N-(aminotriazolyl)sulfonyl,~~  
~~N-(amino-4-methylpiperidiny)lsulfonyl,~~  
~~N-(amino-4-methylpiperazinyl)sulfonyl,~~  
~~N-(aminobenzimidazolyl)carbonyl,~~  
~~N-(aminobenzothiazolyl)carbonyl,~~  
~~N-(aminobenzotriazolyl)carbonyl,~~ ~~N-(aminoindolyl)carbonyl,~~  
~~N-(aminothiazolyl)carbonyl,~~  
~~N-(aminotriazolyl)carbonyl,~~  
~~N-(amino-4-methylpiperidiny)lcarbonyl,~~  
~~N-(amino-4-methylpiperazinyl)carbonyl,~~  
~~N-(2-aminobenzimidazolyl)phosphonyl,~~  
~~N-(2-aminobenzothiazolyl)phosphonyl,~~  
~~N-(2-aminobenzotriazolyl)phosphonyl,~~  
~~N-(2-aminoindolyl)phosphonyl,~~  
~~N-(2-aminothiazolyl)phosphonyl,~~  
~~N-(2-aminotriazolyl)phosphonyl,~~  
~~N-(amino-4-methylpiperidiny)lphosphonyl,~~  
~~N-(amino-4-methylpiperazinyl)phosphonyl,~~ acetamide, nitrile,  
thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide,  
urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,  
phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted  
phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted  
C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted  
phenylthiourea

wherein the ~~C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,~~  
~~C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and~~  
~~phenylthiourea~~ substituents are selected from the group  
consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl,  
carboxylic acid, sulfonic acid, phosphonic acid, amine,  
amidine, acetamide, and nitrile;

$R^{4+}$  is ~~hydrogen, C<sub>1-6</sub>alkyl, phenyl, C<sub>1-6</sub>alkylcarbonyl, phenylcarbonyl, substituted C<sub>1-6</sub>alkyl, substituted phenyl, substituted C<sub>1-6</sub>alkylcarbonyl or substituted phenylcarbonyl,~~

~~—wherein~~

~~—the substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile.~~

where the method comprises the steps of

- (a) preparing a lens comprising a monomer of Formula I, ~~H, III or IV~~ and
- (b) treating said lens with a silver solution.

56. **(Original)** The method of claim 55 wherein the silver solution is aqueous silver nitrate having a concentration of about 0.1 µg/mL to about .3 g/mL.

57. **(Currently Amended)** The method of claim 55 wherein, treating comprises soaking the lens comprising a polymer of a monomer of Formula I, ~~H, III or IV~~ with a silver solution.

58. **(Currently Amended)** The method of claim 55 wherein, the lens comprising a polymer of a monomer of Formula I, ~~H, III or IV~~ is soaking for about 2 minutes to about 2 hours.

59. **(Currently Amended)** The method of claim 55 wherein, treating comprises storing the lens comprising a polymer of a monomer of Formula I, ~~H, III or IV~~ with a silver solution for about 20 minutes to about 5 years.

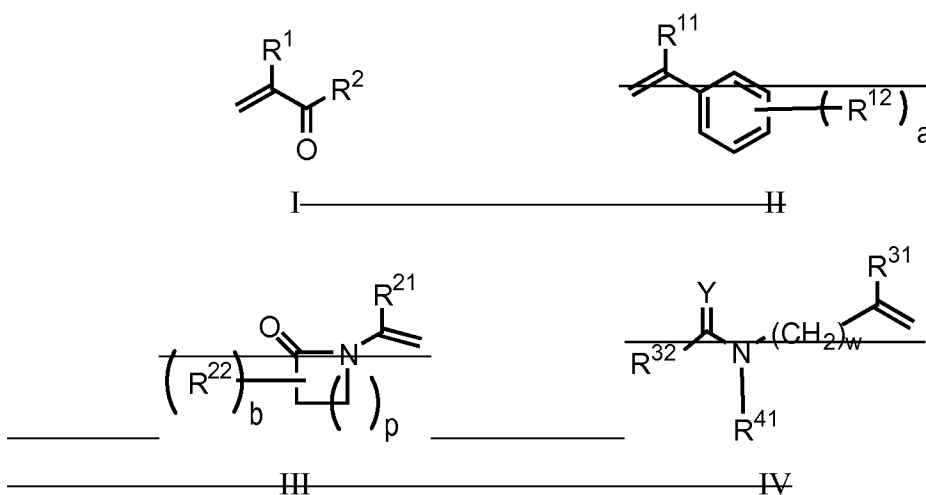
60. **(Currently Amended)** An antimicrobial lens comprising up to about 200 ppm silver and a polymer comprising a binding monomer wherein said antimicrobial lens can reversibly bind silver.



61. **(Original)** The antimicrobial lens of claim 60 wherein the binding monomer has a stability constant of about 2 to about 7.3.

62. **(Canceled)**

63. **(Currently Amended)** A method of reducing the adverse effects associated with microbial production in the eye of a mammal comprising providing an antimicrobial lens, wherein said lens comprises, up to about 200 ppm silver and a polymer comprising a monomer of the Formula I, ~~II, III or IV~~



wherein

$R^1$  is hydrogen or  $C_{1-6}$ alkyl;

$R^2$  is  $-OR^3$ ,  $-NH-R^3$ ,  $-S-(CH_2)_d-R^3$ , or  $-(CH_2)_d-R^3$ , wherein

$d$  is 0-8;

$R^3$  is substituted  $C_{1-6}$ alkyl

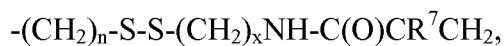
where the alkyl substituents are selected from one or more members of the group consisting of carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol,  $C_{1-6}$ alkyldisulfide,  $C_{1-6}$ alkylsulfide, phenyldisulfide, urea,  $C_{1-6}$ alkylurea, phenylurea, thiourea,  $C_{1-6}$ alkylthiourea, phenylthiourea, substituted  $C_{1-6}$ alkyldisulfide, substituted

phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted C<sub>1-6</sub>alkylthiourea, and substituted phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



wherein R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl,  
q is 1-6, and  
m is 0-6;



wherein R<sup>7</sup> is hydrogen or C<sub>1-6</sub>alkyl,  
n is 1-6, and  
x is 1-6;



wherein R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl,  
t is 1-6, and  
u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;  
benzotriazolyl;  
naphthaloyl;  
quinolinyl;  
indolyl;  
thiadiazolyl;  
triazolyl;  
4-methylpiperidin-1-yl;  
4-methylpiperazin-1-yl;  
substituted phenyl;  
substituted benzyl;  
substituted pyridinyl;  
substituted pyrimidinyl;  
substituted pyrazinyl;  
substituted benzimidazolyl;  
substituted benzothiazolyl;  
substituted benzotriazolyl;  
substituted naphthaloyl;  
substituted quinolinyl;  
substituted indolyl;  
substituted thiadiazolyl;  
substituted triazolyl;  
substituted 4-methylpiperidin-1-yl; or  
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl,

N-(2-aminopyrimidine)phosphonyl,  
 N-(2-aminopyridine)phosphonyl,  
 N-(aminopyrazine)phosphonyl,  
 N-(aminobenzimidazolyl)sulfonyl,  
 N-(aminobenzothiazolyl)sulfonyl,  
 N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,  
 N-(aminothiazolyl)sulfonyl,  
 N-(aminotriazolyl)sulfonyl,  
 N-(amino-4-methylpiperidinyl)sulfonyl,  
 N-(amino-4-methylpiperazinyl)sulfonyl,  
 N-(aminobenzimidazolyl)carbonyl,  
 N-(aminobenzothiazolyl)carbonyl,  
 N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,  
 N-(aminothiazolyl)carbonyl,  
 N-(aminotriazolyl)carbonyl,  
 N-(amino-4-methylpiperidinyl)carbonyl,  
 N-(amino-4-methylpiperazinyl)carbonyl,  
 N-(2-aminobenzimidazolyl)phosphonyl,  
 N-(2-aminobenzothiazolyl)phosphonyl,  
 N-(2-aminobenzotriazolyl)phosphonyl,  
 N-(2-aminoindolyl)phosphonyl,  
 N-(2-aminothiazolyl)phosphonyl,  
 N-(2-aminotriazolyl)phosphonyl,  
 N-(amino-4-methylpiperidinyl) phosphonyl,  
 N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,  
 thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide,  
 urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,  
 phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted  
 phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted  
 C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted  
 phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

a is 1-5;

~~R<sup>11</sup> is hydrogen or C<sub>1-6</sub>alkyl;~~

~~R<sup>12</sup> is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, acetamide, thioC<sub>1-6</sub>alkylcarbonyl, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, -OR<sup>13</sup>, -NH-R<sup>13</sup>, -S-(CH<sub>2</sub>)<sub>d</sub>-R<sup>13</sup>, -(CH<sub>2</sub>)<sub>d</sub>-R<sup>13</sup>, -C(O)NH-(CH<sub>2</sub>)<sub>d</sub>-R<sup>13</sup>, -C(O)-(CH<sub>2</sub>)<sub>d</sub>-R<sup>13</sup>; substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted phenylthiourea or substituted C<sub>1-6</sub>alkylthiourea wherein the substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;~~

~~where~~

~~d is 0-8;~~

~~R<sup>13</sup> is thioC<sub>1-6</sub>alkylcarbonyl;~~

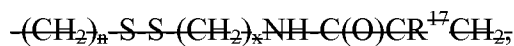
~~—— substituted C<sub>1-6</sub>alkyl~~

~~where the alkyl substituents are selected from one or more members of the group consisting of hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted C<sub>1-6</sub>alkylthiourea and substituted phenylthiourea~~

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,  
C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and  
phenylthiourea substituents are selected from the group  
consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl,  
carboxylic acid, sulfonic acid, phosphonic acid, amine,  
amidine, acetamide, and nitrile;



where R<sup>14</sup>, R<sup>15</sup>, and R<sup>16</sup> are independently selected from the  
group consisting of hydrogen, halogen, hydroxyl, and  
C<sub>1-6</sub>alkyl,  
q is 1-6, and  
m is 0-6;



where R<sup>17</sup> is hydrogen or C<sub>1-6</sub>alkyl,  
n is 1-6, and  
x is 1-6;



where R<sup>18</sup>, R<sup>19</sup>, and R<sup>20</sup> are independently selected from the  
group consisting of hydrogen, halogen, hydroxyl, and  
C<sub>1-6</sub>alkyl,  
t is 1-6, and  
u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;  
 indolyl;  
 thiadiazolyl;  
 triazolyl;  
 4-methylpiperidin-1-yl;  
 4-methylpiperazin-1-yl;  
 substituted phenyl;  
 substituted benzyl;  
 substituted pyridinyl;  
 substituted pyrimidinyl;  
 substituted pyrazinyl;  
 substituted benzimidazolyl;  
 substituted benzothiazolyl;  
 substituted benzotriazolyl;  
 substituted naphthaloyl;  
 substituted quinolinyl;  
 substituted indolyl;  
 substituted thiadiazolyl;  
 substituted triazolyl;  
 substituted 4-methylpiperidin-1-yl; or  
 substituted 4-methylpiperazin-1-yl

wherein the substituents are selected from one or more  
 members of the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl,  
 halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic  
 acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,  
 N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,  
 N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,  
 N-(aminopyrazine)carbonyl,  
 N-(2-aminopyrimidine)phosphonyl,  
 N-(2-aminopyridine)phosphonyl,  
 N-(aminopyrazine)phosphonyl,

~~N-(aminobenzimidazolyl)sulfonyl,~~  
~~N-(aminobenzothiazolyl)sulfonyl,~~  
~~N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,~~  
~~N-(aminothiazolyl)sulfonyl,~~  
~~N-(aminotriazolyl)sulfonyl,~~  
~~N-(amino-4-methylpiperidiny)l)sulfonyl,~~  
~~N-(amino-4-methylpiperaziny)l)sulfonyl,~~  
~~N-(aminobenzimidazolyl)carbonyl,~~  
~~N-(aminobenzothiazolyl)carbonyl,~~  
~~N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,~~  
~~N-(aminothiazolyl)carbonyl,~~  
~~N-(aminotriazolyl)carbonyl,~~  
~~N-(amino-4-methylpiperidiny)l)carbonyl,~~  
~~N-(amino-4-methylpiperaziny)l)carbonyl,~~  
~~N-(2-aminobenzimidazolyl)phosphonyl,~~  
~~N-(2-aminobenzothiazolyl)phosphonyl,~~  
~~N-(2-aminobenzotriazolyl)phosphonyl,~~  
~~N-(2-aminoindolyl)phosphonyl,~~  
~~N-(2-aminothiazolyl)phosphonyl,~~  
~~N-(2-aminotriazolyl)phosphonyl,~~  
~~N-(amino-4-methylpiperidiny)l)phosphonyl,~~  
~~N-(amino-4-methylpiperaziny)l)phosphonyl,~~ acetamide, nitrile,  
~~thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide,~~  
~~urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,~~  
~~phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted~~  
~~phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted~~  
~~C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted~~  
~~phenylthiourea~~  
 wherein the ~~C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,~~  
~~C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and~~  
~~phenylthiourea~~ substituents are selected from the group



consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

b is 1-5;

p is 1-5;

R<sup>21</sup> is hydrogen;

R<sup>22</sup> is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid,

thioC<sub>1-6</sub>alkylcarbonyl, thioC<sub>1-6</sub>alkylaminocarbonyl, C<sub>1-6</sub>alkyldisulfide,

phenyldisulfide, C(O)NH(CH<sub>2</sub>)<sub>1-6</sub>SO<sub>3</sub>H, C(O)NH(CH<sub>2</sub>)<sub>1-6</sub>P(O)(OH)<sub>2</sub>, OR<sup>23</sup>,

NH-R<sup>23</sup>, C(O)NH(CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>-S(CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>, (CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>, urea, C<sub>1-6</sub>alkylurea,

phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted

C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea,

substituted, C<sub>1-6</sub>alkylthiourea substituted phenylurea or substituted

phenylthiourea wherein the substituents are selected from the group consisting

of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid,

phosphonic acid, amine, amidine, acetamide, and nitrile,

where

d is 0-8;

R<sup>23</sup> is thioC<sub>1-6</sub>alkylcarbonyl,

C<sub>1-6</sub>alkyl,

substituted C<sub>1-6</sub>alkyl

where the alkyl substituents are selected from one or more

members of the group consisting of C<sub>1-6</sub>alkyl, halo-C<sub>1-6</sub>alkyl,

halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic

acid, amine, amidine, acetamide, nitrile, thiol,

C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, urea,

C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,

phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted

phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted

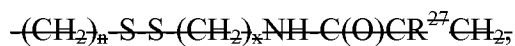
phenylurea, substituted C<sub>1-6</sub>alkylthiourea, and substituted

phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,  
C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and  
phenylthiourea substituents are selected from the group  
consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl,  
carboxylic acid, sulfonic acid, phosphonic acid, amine,  
amidine, acetamide, and nitrile;



where R<sup>24</sup>, R<sup>25</sup>, and R<sup>26</sup> are independently selected from the  
group consisting of hydrogen, halogen, hydroxyl, and  
C<sub>1-6</sub>alkyl,  
q is 1-6, and  
m is 0-6



where R<sup>27</sup> is hydrogen or C<sub>1-6</sub>alkyl,  
n is 1-6, and  
x is 1-6;



where R<sup>28</sup>, R<sup>29</sup>, and R<sup>30</sup> are independently selected from the  
group consisting of hydrogen, halogen, hydroxyl, and  
C<sub>1-6</sub>alkyl,  
t is 1-6, and  
u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;  
indolyl;  
thiadiazolyl;  
triazolyl;  
4-methylpiperidin-1-yl;  
4-methylpiperazin-1-yl;  
substituted phenyl;  
substituted benzyl;  
substituted pyridinyl;  
substituted pyrimidinyl;  
substituted pyrazinyl;  
substituted benzimidazolyl;  
substituted benzothiazolyl;  
substituted benzotriazolyl;  
substituted naphthaloyl;  
substituted quinolinyl;  
substituted indolyl;  
substituted thiadiazolyl;  
substituted triazolyl;  
substituted 4-methylpiperidin-1-yl; or  
substituted 4-methylpiperazin-1-yl;

wherein the substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl,

~~N-(aminobenzimidazolyl)sulfonyl,~~  
~~N-(aminobenzothiazolyl)sulfonyl,~~  
~~N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,~~  
~~N-(aminothiazolyl)sulfonyl,~~  
~~N-(aminotriazolyl)sulfonyl,~~  
~~N-(amino-4-methylpiperidiny)l)sulfonyl,~~  
~~N-(amino-4-methylpiperaziny)l)sulfonyl,~~  
~~N-(aminobenzimidazolyl)carbonyl,~~  
~~N-(aminobenzothiazolyl)carbonyl,~~  
~~N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,~~  
~~N-(aminothiazolyl)carbonyl,~~  
~~N-(aminotriazolyl)carbonyl,~~  
~~N-(amino-4-methylpiperidiny)l)carbonyl,~~  
~~N-(amino-4-methylpiperaziny)l)carbonyl,~~  
~~N-(2-aminobenzimidazolyl)phosphonyl,~~  
~~N-(2-aminobenzothiazolyl)phosphonyl,~~  
~~N-(2-aminobenzotriazolyl)phosphonyl,~~  
~~N-(2-aminoindolyl)phosphonyl,~~  
~~N-(2-aminothiazolyl)phosphonyl,~~  
~~N-(2-aminotriazolyl)phosphonyl,~~  
~~N-(amino-4-methylpiperidiny)l)phosphonyl,~~  
~~N-(amino-4-methylpiperaziny)l)phosphonyl,~~ acetamide, nitrile,  
~~thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide,~~  
~~urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,~~  
~~phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted~~  
~~phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted~~  
~~C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted~~  
~~phenylthiourea~~  
 wherein the ~~C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,~~  
~~C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and~~  
~~phenylthiourea~~ substituents are selected from the group

consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

w is 0-1;

Y is oxygen or sulfur;

R<sup>21</sup> is hydrogen or C<sub>1-6</sub>alkyl;

R<sup>22</sup> is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid,

thioC<sub>1-6</sub>alkylcarbonyl, thioC<sub>1-6</sub>alkylaminocarbonyl, C(O)NH (CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>;

-O-R<sup>23</sup>, -NH-R<sup>23</sup>, -S-(CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>, (CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>, C<sub>1-6</sub>alkyldisulfide,

phenyldisulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,

phenylthiourea, C<sub>1-6</sub>alkylamine, phenylamine, substituted C<sub>1-6</sub>alkyldisulfide,

substituted phenyldisulfide, substituted phenylurea, substituted C<sub>1-6</sub>alkylamine,

substituted phenylamine, substituted phenylthiourea, substituted C<sub>1-6</sub>alkylurea

or substituted C<sub>1-6</sub>alkylthiourea wherein the substituents are selected from the

group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile

where

d is 0-8;

R<sup>22</sup> is thioC<sub>1-6</sub>alkylcarbonyl,

C<sub>1-6</sub>alkyl,

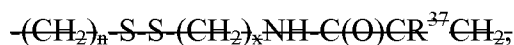
substituted C<sub>1-6</sub>alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, halo C<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea,

substituted C<sub>1-6</sub>alkylthiourea or substituted phenylthiourea  
 wherein the C<sub>1-6</sub>alkyl disulfide, phenyl disulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R<sup>34</sup>, R<sup>35</sup>, and R<sup>36</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl;  
 q is 1-6, and  
 m is 0-6;



where R<sup>37</sup> is hydrogen or C<sub>1-6</sub>alkyl;  
 n is 1-6, and  
 x is 1-6;



where R<sup>38</sup>, R<sup>39</sup>, and R<sup>40</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl;  
 t is 1-6, and  
 u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;  
naphthaloyl;  
quinolinyl;  
indolyl;  
thiadiazolyl;  
triazolyl;  
4-methylpiperidin-1-yl;  
4-methylpiperazin-1-yl;  
substituted phenyl;  
substituted benzyl;  
substituted pyridinyl;  
substituted pyrimidinyl;  
substituted pyrazinyl;  
substituted benzimidazolyl;  
substituted benzothiazolyl;  
substituted benzotriazolyl;  
substituted naphthaloyl;  
substituted quinolinyl;  
substituted indolyl;  
substituted thiadiazolyl;  
substituted triazolyl;  
substituted 4-methylpiperidin-1-yl; or  
substituted 4-methylpiperazin-1-yl;

wherein the substituents are selected from one or more  
members of the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl,  
halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic  
acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,  
N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,  
N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,  
N-(aminopyrazine)carbonyl,  
N-(2-aminopyrimidine)phosphonyl,

~~N-(2-aminopyridine)phosphonyl,~~  
~~N-(aminopyrazine)phosphonyl,~~  
~~N-(aminobenzimidazolyl)sulfonyl,~~  
~~N-(aminobenzothiazolyl)sulfonyl,~~  
~~N-(aminobenzotriazolyl)sulfonyl,~~ ~~N-(aminoindolyl)sulfonyl,~~  
~~N-(aminothiazolyl)sulfonyl,~~  
~~N-(aminotriazolyl)sulfonyl,~~  
~~N-(amino-4-methylpiperidiny)l)sulfonyl,~~  
~~N-(amino-4-methylpiperazinyl)sulfonyl,~~  
~~N-(aminobenzimidazolyl)carbonyl,~~  
~~N-(aminobenzothiazolyl)carbonyl,~~  
~~N-(aminobenzotriazolyl)carbonyl,~~ ~~N-(aminoindolyl)carbonyl,~~  
~~N-(aminothiazolyl)carbonyl,~~  
~~N-(aminotriazolyl)carbonyl,~~  
~~N-(amino-4-methylpiperidiny)l)carbonyl,~~  
~~N-(amino-4-methylpiperazinyl)carbonyl,~~  
~~N-(2-aminobenzimidazolyl)phosphonyl,~~  
~~N-(2-aminobenzothiazolyl)phosphonyl,~~  
~~N-(2-aminobenzotriazolyl)phosphonyl,~~  
~~N-(2-aminoindolyl)phosphonyl,~~  
~~N-(2-aminothiazolyl)phosphonyl,~~  
~~N-(2-aminotriazolyl)phosphonyl,~~  
~~N-(amino-4-methylpiperidiny)l)phosphonyl,~~  
~~N-(amino-4-methylpiperazinyl)phosphonyl,~~ acetamide, nitrile,  
~~thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide,~~  
~~urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea,~~  
~~phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted~~  
~~phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted~~  
~~C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted~~  
~~phenylthiourea~~



~~wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide,  
C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and  
phenylthiourea substituents are selected from the group  
consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl,  
carboxylic acid, sulfonic acid, phosphonic acid, amine,  
amidine, acetamide, and nitrile;~~

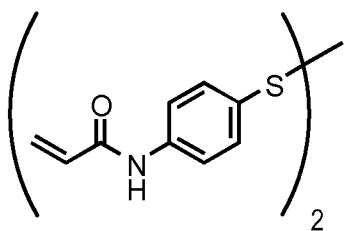
~~R<sup>41</sup> is hydrogen, C<sub>1-6</sub>alkyl, phenyl, C<sub>1-6</sub>alkylcarbonyl, phenylcarbonyl,  
substituted C<sub>1-6</sub>alkyl, substituted phenyl, substituted C<sub>1-6</sub>alkylcarbonyl or  
substituted phenylcarbonyl,~~

~~— wherein~~

~~— the substituents are selected from the group consisting of C<sub>1-6</sub>alkyl,  
haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid,  
phosphonic acid, amine, amidine, acetamide, and nitrile.~~

64. **(Currently Amended)** An antimicrobial lens comprising up to about 200 ppm silver, wherein said lens has sufficient movement on the eye of a patient.
65. **(Currently Amended)** The lens of claim 64 wherein said lens has sufficient movement on between having about 50 to about 100 percent movement of patients wearing said lens.
66. **(Currently Amended)** The lens of claim 64 wherein said lens has sufficient movement on between having about 75 to about 100 percent movement of patients wearing said lens.
67. **(Currently Amended)** The lens of claim 64 wherein said lens has sufficient movement on between having about 90 to about 100 percent movement of patients wearing said lens.
68. **(Currently Amended)** An antimicrobial lens comprising up to about 200 ppm silver, wherein said lens inhibits microbial production by at least 25%.

69. **(Original)** The lens of claim 68 wherein said lens inhibits microbial production by at least about 50% to at least about 99%.
70. **(Original)** The lens of claim 68 wherein said lens inhibits microbial production by at least about 80% to at least about 99%.
71. **(Currently Amended)** An antimicrobial lens comprising up to about 200 ppm silver, wherein said lens has sufficient movement on the eye of a patient and said lens inhibits microbial production by at least 25%.
72. **(Currently Amended)** The lens of claim 71 wherein said lens has sufficient movement on between having about 50% to about 100% of patients wearing said lens movement and said lens inhibits microbial production by 75% to about 100%.
73. **(Original)** The lens of claim 1 wherein said silver reversibly binds to said monomer.
74. **(Previously Presented)** An antimicrobial lens comprising silver and a polymer comprising a monomer of Formula



75. **(Previously Presented)** An antimicrobial lens comprising silver and a polymer comprising a monomer of Formula

